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Trends, Challenges and Opportunities at University of Manitoba Libraries during the COVID Pandemic

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ABSTRACT

The COVID-19 pandemic brought rapid and radical changes to higher education, and academic libraries adapted and devised solutions. This article will review the initiatives that the University of Manitoba Libraries (UML) implemented prior to the pandemic, as well as the library's response, focusing on the performance of these initiatives in the past two years. These initiatives are new service models including a fully virtual library, new technologies, such as self-service lockers, and structural reorganization, for example, the creation of functional teams. The review will demonstrate how the above initiatives ensured the continuity of library services during the pandemic. The pandemic is viewed as a touchstone that tested the trends of the academic library community in an extreme situation. The success of the library services provided by the UML inspires positive thinking about the forward direction for public research university libraries.

Keywords: Academic Library, COVID-19, Pandemic Reflection, Virtual Reference, Virtual Library

INTRODUCTION

The COVID-19 pandemic rapidly and radically changed higher education in the past two years. Online teaching and learning were implemented; libraries and collections were closed; students faced financial burdens. With campuses reopening in North America, those suspended library services have since resumed. Libraries are on the way to operating as they did prior to the pandemic, however they will not be completely the same. They have transformed into a new normal. The pandemic has not left us just the experience of supporting students and faculty remotely, but its impact can be viewed as further transitioning academic libraries into self-service and virtual realms.

From 2016 to 2019, the UML transitioned from a collection-oriented organization to a service-oriented organization. The new initiatives implemented during this period included a robust virtual reference service, where reference transactions are carried out primarily on an online platform; a completely virtual library, providing all services remotely to health professionals; implementation of self-service technologies, that allow library clients to access print collections without staff intervention; and the creation of functional teams, focusing on research and instruction support.

This article analyzes the performance of the above initiatives in the past two years, studies the impact of the pandemic on the UML's services, and discusses the direction of public research university libraries in the post-pandemic era.

LITERATURE REVIEW

Libraries have a history of implementing technology as a way to improve customer service and remove time intensive manual duties from staff (Butters, 2006; Sigwald, 2016). Some of these advances include the introduction of online catalogues, electronic journals, virtual or chat reference services, and the implementation of self checkout devices. Prior to the pandemic, libraries of all kinds were investing in self-serve technologies and migrating in-person services to include virtual options. Butters in 2007 provides a guide to automating loans and returns for libraries, to ensure a successful transition away from labour intensive staff-mediated circulation transactions. Nagy in 2011 describes the adoption of various self-serve options from checkout counters, kiosks and single point-of-access information stations as a way for the academic library to remain relevant to the tech savvy millennial generation (Nagy, 2011). Sigwald in 2016 described the successful implementation and high customer satisfaction achieved by the Baltimore County Public Library by moving to a self-service customer service model, with the addition of a self-service catalogue with account management features and self check-out kiosks. Hutchinson in 2020 recommends the adoption of self-service technologies stating, "Self-service technology offers freedom for the user and supports the sustainability of the library. This is the future of academic libraries." (Hutchinson, 2020) The pandemic brought about further adoption of technological solutions as libraries tried to find ways to continue services under public health restrictions imposed by the COVID-19 pandemic.

Walsh presented the measures implemented by the University of Toronto Libraries (UTL) at the beginning of the pandemic to ensure the continuity of core services to support research and learning (Walsh & Rana, 2020). Facing the challenges caused by the remote environment, two approaches taken by the UTL were reinforcing existing online resources and implementing new research tools, either acquired or developed. Walsh noticed the demand for research support through the library's online reference platform increased by 50% immediately after the campus was closed. With the closure of the Libraries' print-based materials, the UTL implemented various alternatives, including providing controlled digital lending through the HathiTrust Emergency Temporary Access Service and expanding digital collections to include scholarly content, the access restrictions of which were temporarily lifted by the providers.

At the University of Calgary Libraries and Cultural Resources (UCLCR), existing digital knowledge, expertise, skills and service models have been leveraged to provide services of a high level to the university users (Murphy et al., 2021). The initiatives UCLCR took to reduce the impact of the pandemic focused in four main areas: digital library service, physical library service, collections, and Archives and Special Collections. Connecting the library's physical space to its online services, UCLCR created 360-degree virtual tours. UCLCR also noticed a 246% increase of the library's online chat service during the first 12 months of the pandemic. UCLCR anticipated those digital library services, four of which were newly implemented during the pandemic and three of which were enhanced existing services, would still be utilized in the future.

Harnegie provided a snapshot of how health sciences and hospital libraries were affected by the COVID-19 pandemic (Harnegie, 2021). One significant difference in response to the pandemic between hospital libraries and general academic libraries was hospital libraries reopened shortly after the initial shutdown at the beginning of the pandemic. Access to older print materials was key to researchers' efforts to advance COVID-19 research and treatment of these patients. Print interlibrary loan (ILL) and Docline requests were resumed quickly, with ILL fees waived by certain institutions to facilitate information sharing and reduce the financial constraints that hospitals were facing.

Mehta discussed the challenges that a middle-size comprehensive university of liberal arts and professional programs faced in the pandemic, and the practices it took to deliver digital library services (Mehta & Wang, 2020). At the beginning of the pandemic, the library was facing more challenges with engaging faculty and students with digital services, as in-person services, such as reference, were the dominant model before the pandemic. Compared to research universities, libraries at comprehensive universities had relied more on traditional ways to serve users. The pandemic provided an opportunity to accelerate the switch to digital services.

COVID-19 radically changed library service models. How library services were perceived by students was assessed at the University of Illinois Chicago (UIC) Library through monthly surveys on user experiences (Scoulas et al., 2021). It was found that the hygiene of the library played a vital role in providing positive user experiences. Users' satisfaction with library services constantly increased when barriers to space and seat booking were removed. The library could not accommodate certain student requests, such as extended hours and group study rooms, due to the amount of resources needed as well as public health restrictions.

Although the pandemic forced instruction to move to a primarily online format, prior to the pandemic, libraries were developing online tutorials and toolkits to reach the growing number of students enrolled in online and distance education programs. Halpren & Tucker put forth the argument in 2014 that information literacy instruction, aligned with the principles of adult learning theory, produces a better learning experience for some adult learners (Halpern & Tucker, 2015). Skill development is needed for librarians to create these new types of resources, as online education is not likely to disappear in the post-pandemic era.

Most of the literature that discussed changes to library models during the pandemic rarely compared those changes to the broader trends facing academic libraries. Such comparison should be the basis for any discussion on post-pandemic library services. Absent in the literature was a discussion on the role an academic library could play in leveraging its resources and unique skills to solve challenges facing universities during the pandemic.

LIBRARY INITIATIVES IMPLEMENTED PRIOR TO THE PANDEMIC

The UML started to reorganize library services in 2016, concentrating resources on faculty and student support. The initiatives implemented by the library from 2016 to 2019 transitioned it from a traditional collection-oriented organization to a modern, service-oriented organization. Those initiatives included a robust virtual reference service, a transformed virtual health library, the implementation of various self-service technologies and the creation of new functional teams.

Virtual Reference Team

Traditional reference services have migrated into the online environment over the last decade. The UML has been offering a chat or virtual reference service since 2011. Similar to other academic libraries, the staffing model and service provision of the virtual reference service has changed and evolved over the last decade (Gerbig et al., 2021; Wharton & Mann, 2020). The service has continued to grow and is considered a standard method for providing reference services. Public service staff received training in conducting a reference interview and best practices for communicating in the online environment, including the use of virtual reference software. Policies and guidelines for the virtual reference service were developed and revised over the last decade. In-depth reference consultations with librarians transitioned with the implementation of a single service desk model. Beginning in 2014, librarians no longer staffed the reference desk, but started using an online calendar by which clients can book appointments for consultation. Although appointments initially occurred in person, the removal of the librarians from a traditional reference desk laid the ground to a fully virtual reference service during the pandemic.

WRHA Virtual Library

The UML has provided library services to the Winnipeg Regional Health Authority for over two decades. The original model established print collections in eight health institutions with staff located at each site. In 2017, the UML radically changed the model, transforming services to a completely virtual library (Cooke, 2021). The new WRHA Virtual Library provides online access to licensed health resources directly to clients, and relocated staff to a single location, offering services remotely to clients across the region. Services include desktop delivery of articles, online workshops, literature searching, and access to physical materials delivered through a courier system or picked up at the UML.

Functional teams to support learning and research

Reorganization of public services within the UML resulted in the creation of two new areas of responsibility, Research Services and Digital Strategies (RSDS) and Learning and Instruction (L&I). RSDS responsibilities include data management, open scholarship, research impact, researcher support and profile management, data visualization, creative masterworks support, preservation and digitization, and collaboration with the Office of Research Services (ORS). The Coordinator for Learning and Instruction leads the virtual reference team to directly serve students. It also supports liaison librarians in the role of teaching, resulting in a coordinated approach to the adoption of teaching and learning support tools. This includes more standardization of instruction to undergraduate students, and support for open educational resources.

Self-Service for Course Reserves and Library Pickups

At the UML, course reserve materials were kept behind the circulation desk at each branch. Reserve materials were manually checked out and checked in at the circulation desk, and returned materials had to be shelved by staff. This service model required the circulation desk to be staffed

during all open hours, which limited the availability of the material to those hours. In 2018, the UML carried out a reserve kiosk project, during which multiple NovelBranch Kiosks (Convergent Library Technologies, 2022) were implemented in different locations on the campus. Course reserves were equipped with radio-frequency identification (RFID) tags and moved from behind circulation desks to inside the kiosks. When students take course reserve materials out of a kiosk, those items are checked out to their library accounts. When students put course reserves back into the kiosk, those items are returned via the Integrated Library System (ILS). The check-in and check-out processes are automatic, without any intervention from library staff, and provide a 24/7 service to students.

Figure 1 presents the circulations per course reserve in the libraries where a reserve locker was implemented. As those reserve lockers were put to use in different months in 2018, statistics about item circulations are not consistent. As a result, statistical information from the year of 2017, when all reserve items in these libraries were kept behind the circulation desk, and the year of 2019, when all reserve items in these libraries were kept in a reserve locker, are included in this figure.

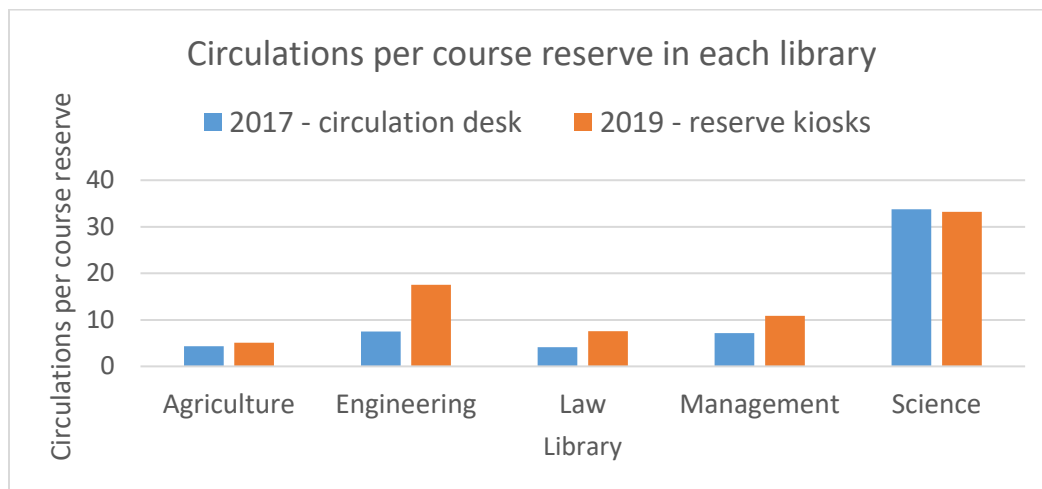


Figure 1. Circulations per course reserve in library in 2017 and 2019

In 2019 in order to improve user experience requesting library materials, the UML carried out another project to implement two HoldIT (D-Tech International Ltd, 2022) pickup lockers. Library items placed on hold were previously kept on designated shelves so that students could come pick them up when the library was open. This traditional service model is again limited to the library's opening hours, and requires the circulation desk to be always staffed. The two pickup lockers were placed in the library buildings, but outside the libraries' entrances. Thus, even when the libraries are closed, students can still retrieve their on-hold items. One pickup locker was installed at the Neil John Maclean Health Science Library on the Bannatyne campus, and has been in use since September 2019. The other pickup locker was installed in the University Centre building in September 2019, and moved to the Elizabeth Dafoe Library in August 2020 when the document delivery service was resumed during the pandemic.

LIBRARY PERFORMANCE DURING THE PANDEMIC

The impact of the pandemic affected the workings of all academic libraries. As a response, the UML made adaptations to services that could be continued, which included expanded functional teams with a focus on open education, research support and increased online services. The initiatives implemented prior to the pandemic placed the UML in a strong position to adapt to pandemic-forced challenges. Because of these initiatives, most library services continued to be provided.

Continuity of WRHA Virtual Library, Virtual Reference and Library Pickups

The WRHA Virtual Library transitioned seamlessly during the pandemic and experienced no significant interruption of services. Figure 2 presents the document delivery requests fulfilled by the WRHA Virtual Library team in 2019 and 2020. Delivering documents from the University of Manitoba Libraries' collections to physicians is one of the major services provided. The total number of the fulfilled requests in 2019 was 2,961 while the number in 2020 was 2,618. Considering only 55% of the University of Manitoba Libraries' collections were available upon request during the pandemic, the document delivery service provided by the WRHA Virtual Library team was not significantly affected by the pandemic.

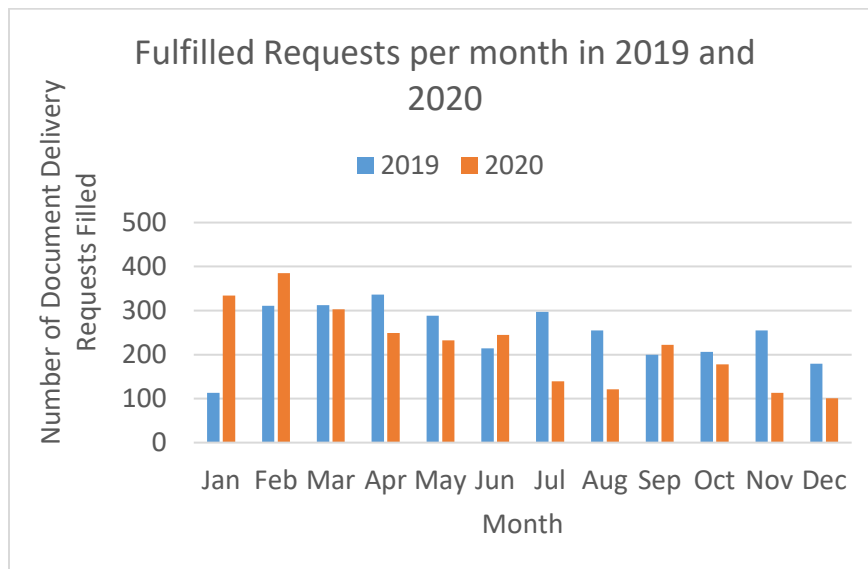


Figure 2. Document delivery requests fulfilled by WRHA Virtual Library in 2019 and 2020

The UML AskUs virtual reference service operated on SpringShare's platform. With the university switching to online instruction, the chats answered by the AskUs service increased. Figure 3 presents the number of chats answered by the UML AskUs virtual reference service in 2019, 2020 and 2021.

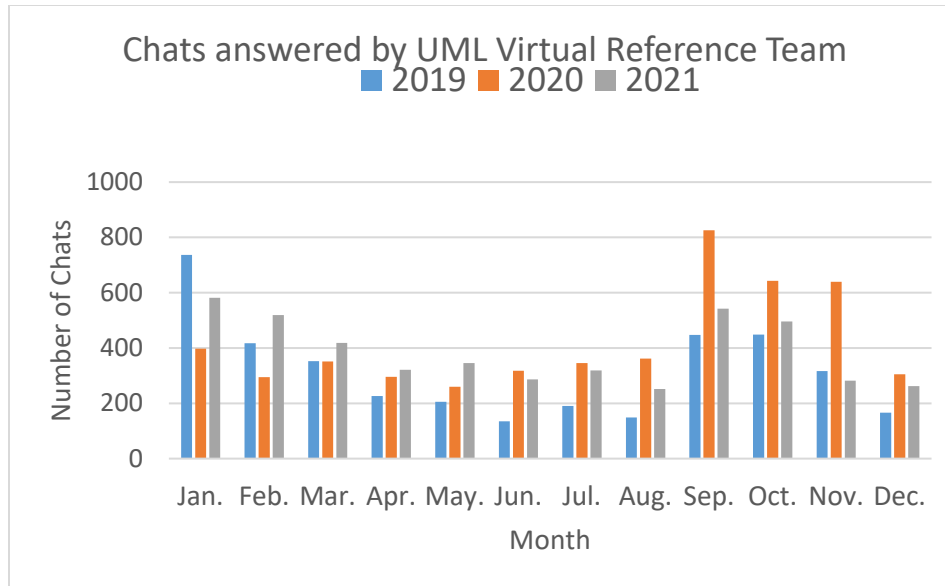


Figure 3. Chats answered by UML Virtual Reference Team in 2019, 2020, and 2021

During the pandemic, instead of providing a curbside pickup service, the UML continued the pickup locker service as its contactless design naturally fit public health requirements. Relocation of a pickup locker to outside the Elizabeth Dafoe Library, the main library on the Fort Garry campus, provided a convenient central location to offer contactless retrieval of print resources. The other pickup locker was located at the Neil John Maclean Health Sciences Library (NJM Library) since the implementation, and is the only pickup location on the Bannatyne campus. Therefore, only data about library hold requests at the NJM Library is presented here. Figure 4 presents the number of hold requests with the NJM Library as the pickup location from 2019 to 2021. Although the month-to-month data shows the requests decreased in 2020 and 2021, this may be due to the fact that again, only 55% of the UML's collections were available to be requested during the pandemic. Figure 5 presents a normalized number of those requests. The number of 2019 requests and the requests in the first three months of 2020 stay unchanged, and the number of the requests after March 2020 were multiplied by 1.82 to take into consideration the reduced volume of available collections. From April 2020 to July 2020, the pickup service was also suspended. Considering students' willingness to come to campus to pick up library materials, this pickup locker service was not significantly affected by the pandemic.

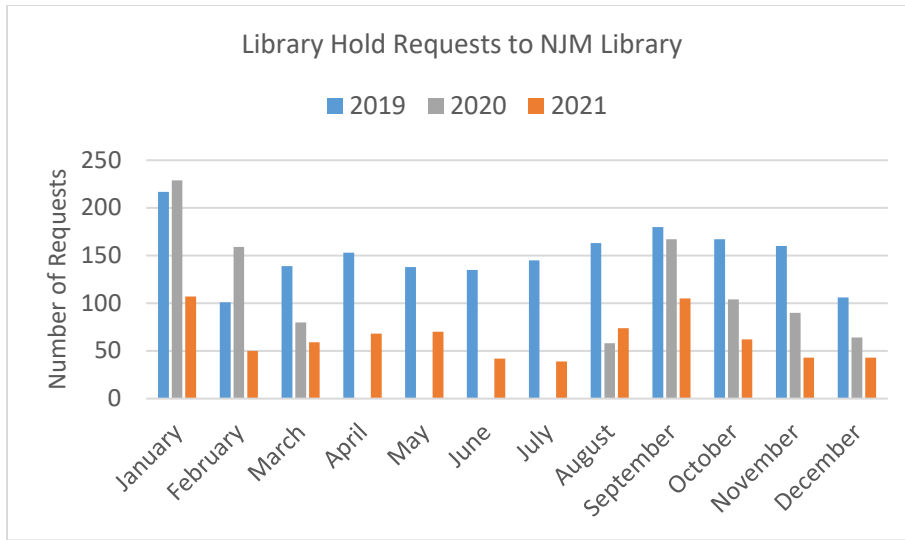


Figure 4. Library Hold Requests picked up at the NJM Library in 2019 and 2021

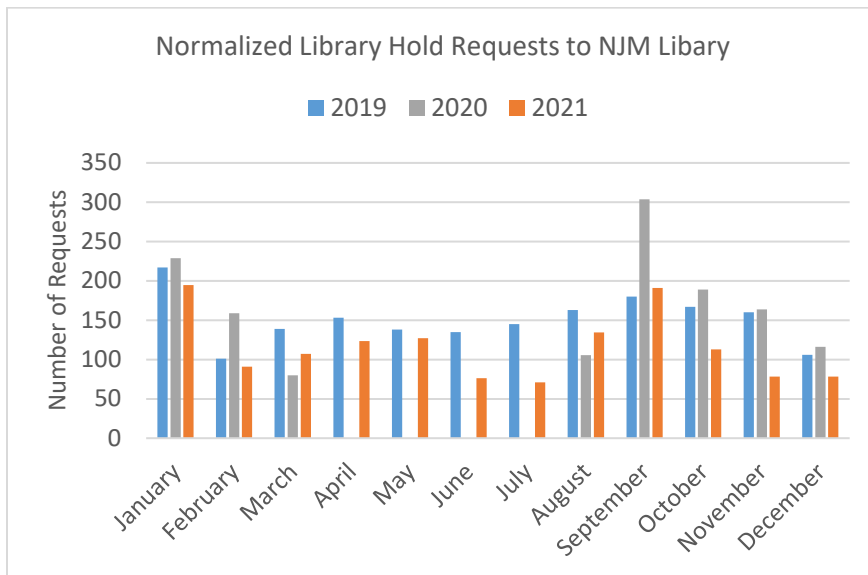


Figure 5. Normalized Library Hold Requests picked up at the NJM Library in 2019 and 2021

Expansion of functional team with Open Educational Resources (OERs) support

The UML expanded the Learning & Instruction functional team created during the public service reorganization prior to the pandemic by adding a new OER Librarian position in 2021. Position responsibilities include: “identify and share OERs with faculty and library clients and to develop and deliver training sessions.” In 2022, the University of Manitoba established a campus wide Open Education Resource Working Group chaired jointly by the Libraries and the Centre for the Advancement of Teaching and Learning. The OER working group is tasked with facilitating OER creation, use and adoption at the University, as well as developing strategies to increase the use of OER and other affordable learning materials.

Implementation of more online services

Following public health orders, the UML closed all stacks to patrons for the past two years. As a result, the reserve kiosk service was suspended in 2020 and 2021. In order to keep supporting instruction, in May 2020, the UML subscribed to Leganto, a reading list management system provided by Ex Libris. On the Leganto platform, instructors can send draft reading lists directly to the library, where library staff will digitize materials, order the electronic version of a book, or purchase a print copy of a title. Once the library's work is complete, the reading list will be released to students on the platform. This greatly increases the efficiency of the workflow for library staff and facilitates the use of reading lists for students. In order to secure access to as many electronic versions of our print materials as possible, in July 2020, the UML became a member of the HathiTrust Digital Library and signed up for the HathiTrust Emergency Temporary Access Service (ETAS). This provided online access for faculty and students to in-copyright items on the HathiTrust platform. The ETAS covers around 45% of the UML collections. In the past two years, the average usage of ETAS at University of Manitoba is 480 items per month.

DISCUSSION ON POST-PANDEMIC ERA

The Association of College & Research Libraries (ACRL) identified OER as a continued trend in 2018 (ACRL, 2018) and reports that increased financial burdens on students in addition to the continuing increase in the cost of textbooks resulted in the Open Educational Resources movement (Calvert et al., 2020). The shift to online teaching forced by the pandemic has lessened the resistance to OER resources among faculty members and it is predicted that academic libraries will continue as partners in the adoption and creation of these tools (Boehme et al., 2021; Calvert et al., 2020). The creation of an OER librarian position and the further development of functional teams, specifically the Learning & Instruction team with OER responsibilities, provides the staff resources to address this current and future trend.

Instruction can be provided using several methods: online (synchronously or asynchronously), offline or in-person, or hybrid, which is a combination of online and in-person teaching. The initiatives the UML implemented prior to the pandemic were in the context that in-person teaching and services was the dominant method. Shifting the focus to develop more online instruction and online student supports, such as virtual reference and online appointment scheduling with librarians prior to the pandemic allowed for the continuity of core services during the pandemic. As a case study, the UML can be seen as proof of concept that these changes meet the challenges caused by the pandemic and its shift from predominantly in-person to a hybrid service model. The success of the UML's initiatives inspires images of a positive and bright future direction for academic libraries in the post-pandemic era.

Virtual reference allows students to communicate with the library without location restriction, frees staff from the circulation desk and extends the service beyond the library's operating hours. Switching from in-person reference to virtual reference is not a simple change, as the latter has many unique challenges. It involves building a virtual team, where team members might never see each other; determining how to communicate with users effectively and efficiently

through written messages; establishing how to collaborate with other team members during busy hours; and facilitating the mobilization of the team during an emergency. Virtual reference is a natural fit to the online instruction environment. The success of virtual reference, or online chat, implemented at the UML and many other institutions can be viewed as additional proof of concept that online services implemented or elevated during the pandemic performed well. These services are likely to be expanded and enhanced over the next few years to include initiatives such as virtual tours.

Compared to virtual reference, the creation of a fully virtual library service is a further shift away from the traditional library. Although the services provided by a virtual library, such as access to electronic resources, article delivery, and online consultation, are also provided by traditional libraries, virtual library patrons never have to “step” into the library. Thus, compared to virtual reference, a virtual library faces more fundamental challenges, including how to build trust between virtual library staff and patrons, how to attract patrons and promote virtual library services, and how to prove the value of virtual library services to both staff and patrons. Therefore, it might be suitable only for a specific group of users at this moment, but may be broadly implemented in the future if in-person learning is no longer the dominant modality.

New models to deliver traditional library services should be explored in the post-pandemic era, just as libraries adapted to the demands of tech savvy millennials described by Nagy (Nagy, 2011). Libraries will have to meet the demands of the post-pandemic students who have to come to expect flexible service options that are convenient, and meet them where they are, either online or in-person. The reserve kiosks and the pickup lockers have demonstrated their value to the UML. These self-service pieces of equipment, make it possible to transform a traditional academic library into a learning commons while meeting students’ needs for print materials. Prior to the pandemic, the UML was comprised of eleven libraries, each of which serves targeted faculties, colleges, and schools. During the pandemic, the UML reviewed the needs of those groups, discussed the potential service models and reimagined these spaces in light of self-service equipment and virtual services. The result is a redesign of four branches into unstaffed learning commons. Working together with the Faculty of Education, the UML opened a learning commons in the Education building where no library pre-existed, expanding the library’s contact with students without increasing staff resources.

Stakeholders have new expectations for academic libraries, as ACRL reports the demand for OER support and data services will likely increase. Academic library staff will need to be reassigned and trained to meet these new service responsibilities. Automating labour-intensive tasks will free up staff time for these new services. New service models will require a reorganization of the traditional academic library. The UML is transforming from a collection-oriented organization to a service-oriented organization. The creation of the RSDS department and the L&I functional team reflects the increasing demand for research support and instruction support from faculty. These functional teams are able to coordinate resources, promote services and select collaborative approaches across the organization. They can also incorporate emerging needs for library services, such as the OER position. The development of functional teams capitalizes on the strengths and skills libraries can offer to their institutions, placing libraries in a position to offer support and build partnerships throughout the campus.

CONCLUSION

Due to the COVID-19 pandemic, teaching and learning was moved primarily to the Internet. Academic libraries have closed collections as well as spaces, and relied on digital and electronic services to meet the needs of faculty and students. Despite the challenges it caused, the pandemic provided an opportunity for academic libraries to glimpse what the future might look like when all teaching and learning activities could be provided online.

The COVID-19 pandemic will undoubtedly continue to play a major theme in issues facing higher education in the coming years. ACRL and Calvert (ACRL, 2018; Calvert et al., 2020) report the trends academic libraries can expect to see, including broader social issues, such as student financial challenges and the importance of equity, diversity, and inclusion for vibrant, healthy work and learning environments. The pandemic forced institutions to adopt different teaching modalities; as faculty gain more experience using these different teaching methods, an increase in interest and acceptance of open educational resources and open scholarship can be expected. The closing of print collections dramatically increased the demand for electronic access to resources; controlled digital lending of print collections and the demand for electronic course-required resources is expected to continue or increase. Librarians have long played a role in teaching information literacy skills. This role will continue and be expanded to include other literacies such as science, digital, privacy and data literacies. Leaders in the workshops held by CNI (Calvert et al., 2020) felt these entrenched roles of libraries will be enhanced and place research libraries in a position of strength within their institutions in the coming years.

With the early adoption of self-service technologies, such as the self-check app, reserve kiosks, pickup lockers and with the reorganization of public services prior to the pandemic, the University of Manitoba Libraries could quickly adapt to the challenges the pandemic was imposing. The performance of the library services provided during the pandemic demonstrated that the changes the library made prior conform to the trends of research libraries in the digital era and are positioned well to meet new challenges as the shift to online instruction and virtual services continues to evolve. This review of the services provided by the University of Manitoba Libraries' during the pandemic is a case study of the transition from collection-oriented to service-oriented changes that research libraries can make to support evolving research, teaching and learning trends in the post-pandemic period.

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